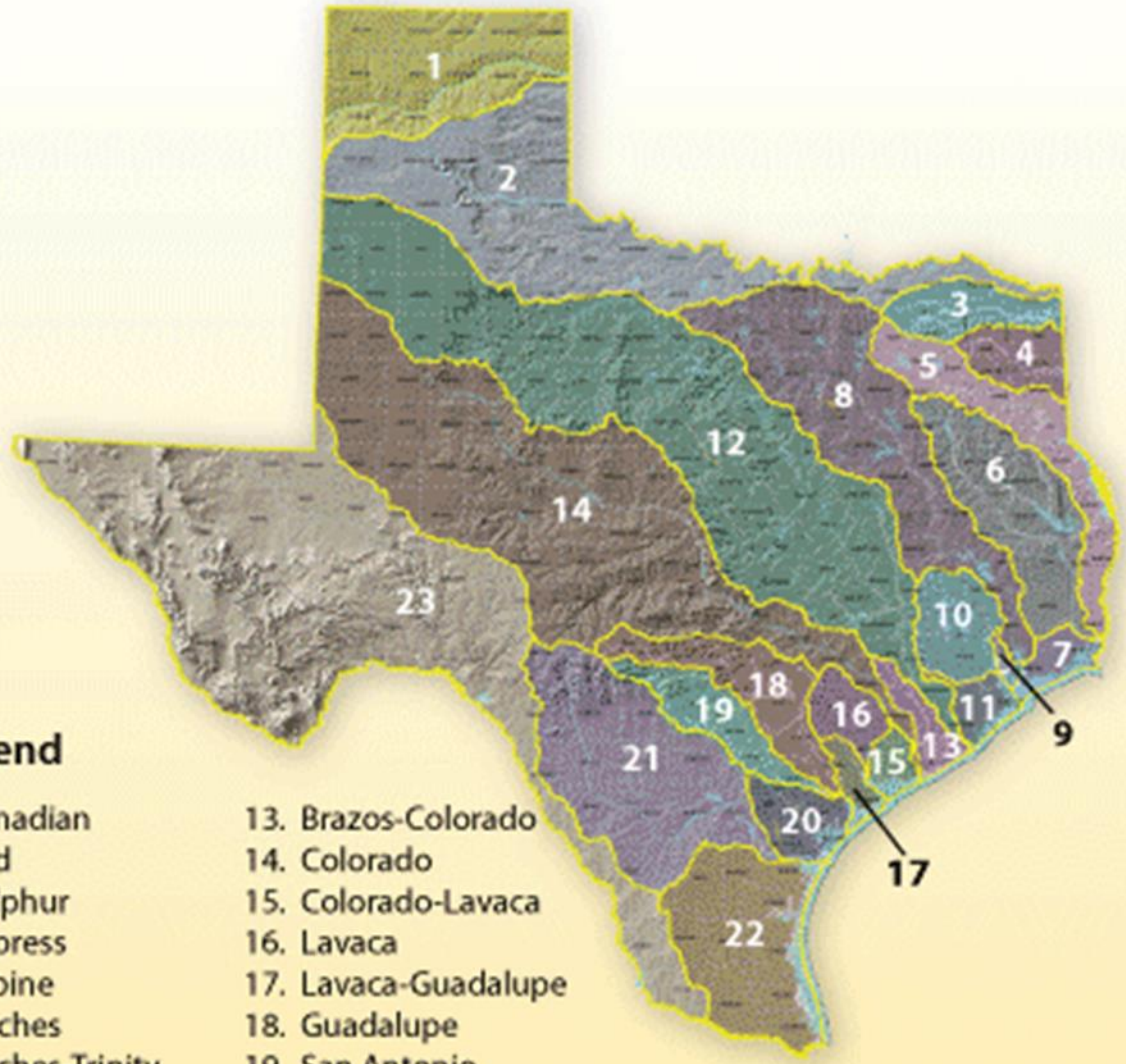
Dr. Thom Hardy

The Meadows Center for Water and Environment

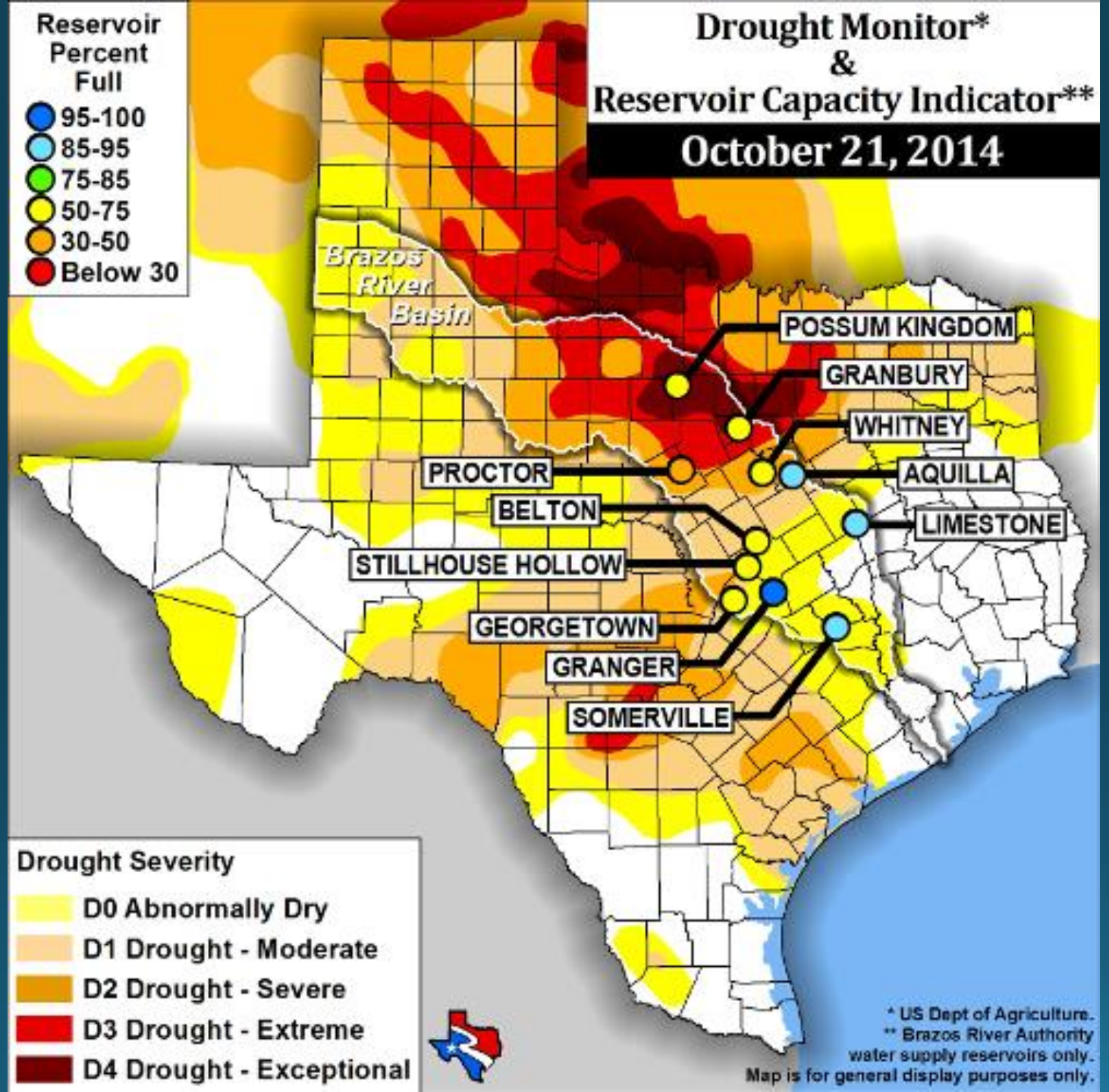
Status of Aquatic Habitat in Texas

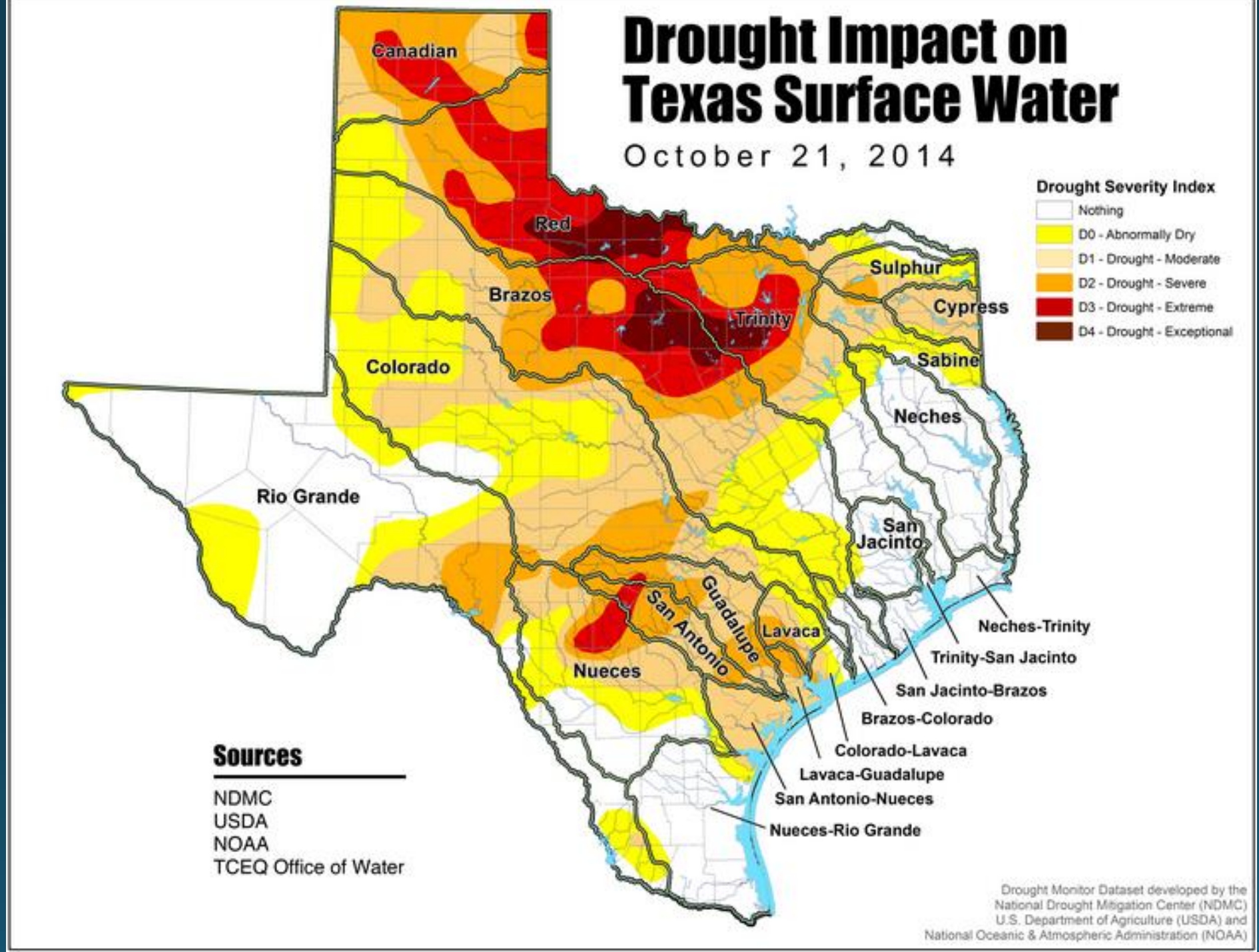


Legend

1. Canadian
2. Red
3. Sulphur
4. Cypress
5. Sabine
6. Neches
7. Neches-Trinity
8. Trinity
9. Trinity-San Jacinto
10. San Jacinto
11. San Jacinto-Brazos
12. Brazos
13. Brazos-Colorado
14. Colorado
15. Colorado-Lavaca
16. Lavaca
17. Lavaca-Guadalupe
18. Guadalupe
19. San Antonio
20. San Antionio-Nueces
21. Nueces
22. Nueces-Rio Grande
23. Rio Grande

Source: Texas Water Development Board


Reservoir Percent Full
95-100
85-95
75-85
50-75
30-50
Below 30
Drought Monitor*
&
Reservoir Capacity Indicator**
October 21, 2014
Brazos River Basin
POSSUM KINGDOM
GRANBURY
WHITNEY
AQUILLA
PROCTOR
BELTON
LIMESTONE
STILLHOUSE HOLLOW
GEORGETOWN
GRANGER
SOMERVILLE
Drought Severity
D0 Abnormally Dry
D1 Drought - Moderate
D2 Drought - Severe
D3 Drought - Extreme
D4 Drought - Exceptional
* US Dept of Agriculture.
** Brazos River Authority water supply reservoirs only.
Map is for general display purposes only.


Drought Impact on Texas Surface Water
October 21, 2014
Drought Severity Index
Nothing
D0 - Abnormally Dry
D1 - Drought - Moderate
D2 - Drought - Severe
D3 - Drought - Extreme
D4 - Drought - Exceptional
Canadian
Red
Brazos
Trinity
Sulphur
Cypress
Sabine
Neches
Colorado
Rio Grande
San Jacinto
San Antonio
Guadalupe
Lavaca
Nueces
Neches-Trinity
Trinity-San Jacinto
San Jacinto-Brazos
Brazos-Colorado
Colorado-Lavaca
Lavaca-Guadalupe
San Antonio-Nueces
Nueces-Rio Grande
Sources
NDMC
USDA
NOAA
TCEQ Office of Water
Drought Monitor Dataset developed by the
National Drought Mitigation Center (NDMC)
U.S. Department of Agriculture (USDA) and
National Oceanic & Atmospheric Administration (NOAA)

Brazos River Basin - 2013

Drought:

9. Ninety-nine percent of the watershed at or above the senior call location is in at least moderate drought as classified by the National Drought Mitigation Center.
10. Streamflows at U. S. Geological Survey gaging stations 08116650, near Rosharon, and 08114000, at Richmond, are below the 33rd percentile for the period of record. The period of record for the Rosharon gage is April 1967 to present and the period of record for the Richmond gage is 1903 to present.

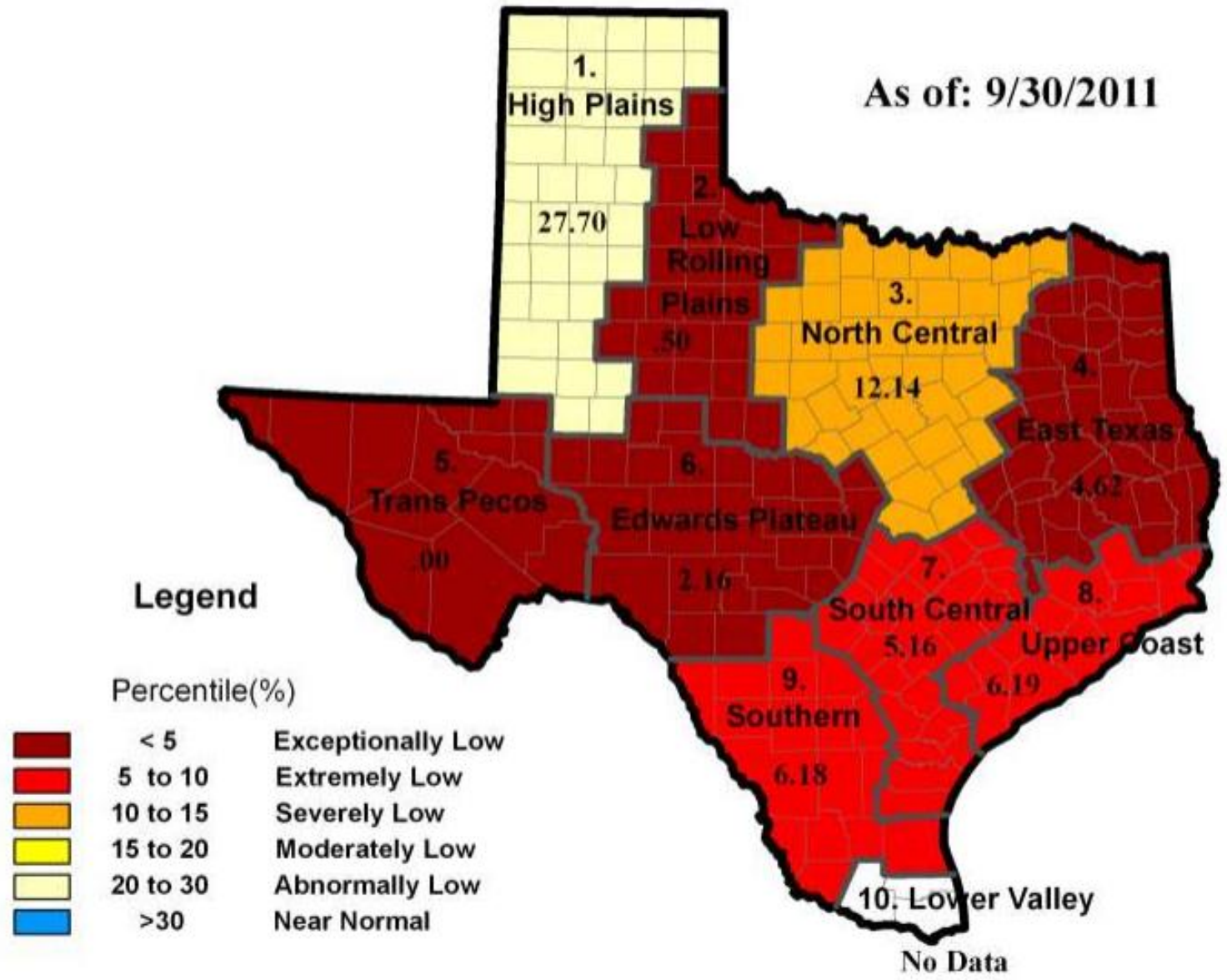
191,000 miles of rivers and streams in Texas provide habitat for 255 species of fishes

With over 150 species of native freshwater fishes, Texas ranks among the most biologically diverse states

- Texas ranks 2nd nationally in terms of angler days and the amount of money spent on fishing

- Sportsmen spend $6.6 billion per year in Texas

Streamflow Index (SFI)

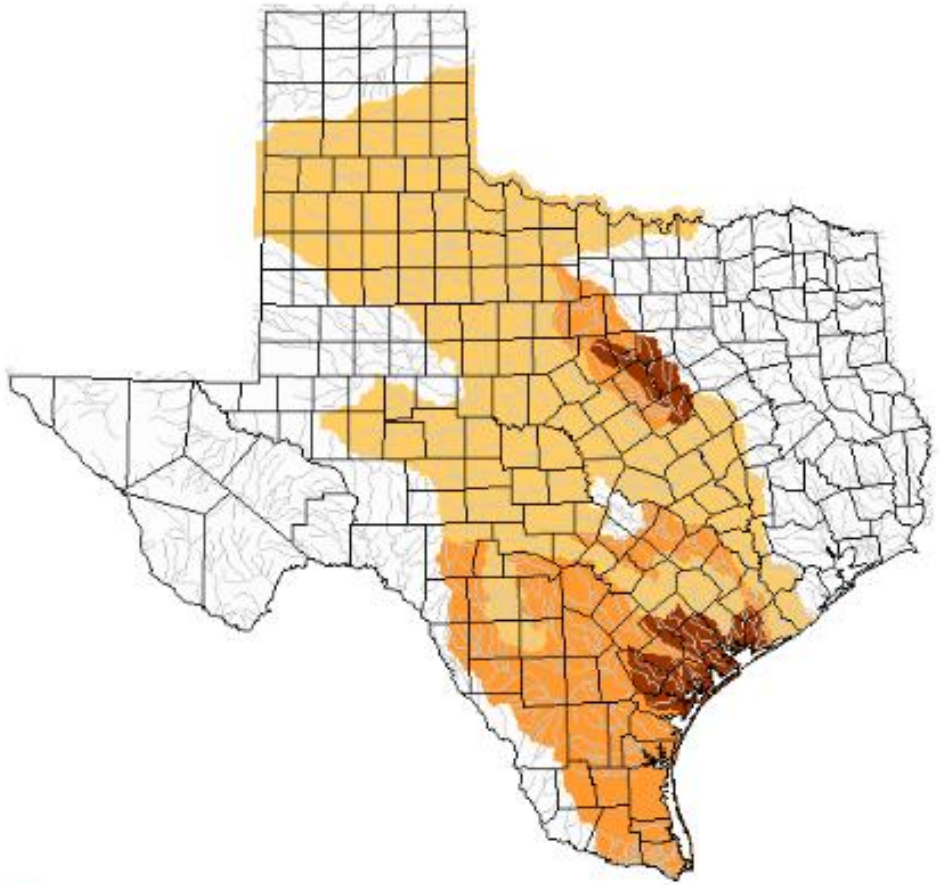


Data courtesy of United State Geological Survey and Texas Water Development Board. Graphic created by TWDB

Map of below normal 7-day average streamflow compared to historical streamflow for the day of year (Texas)

Texas

Sunday, October 26, 2014

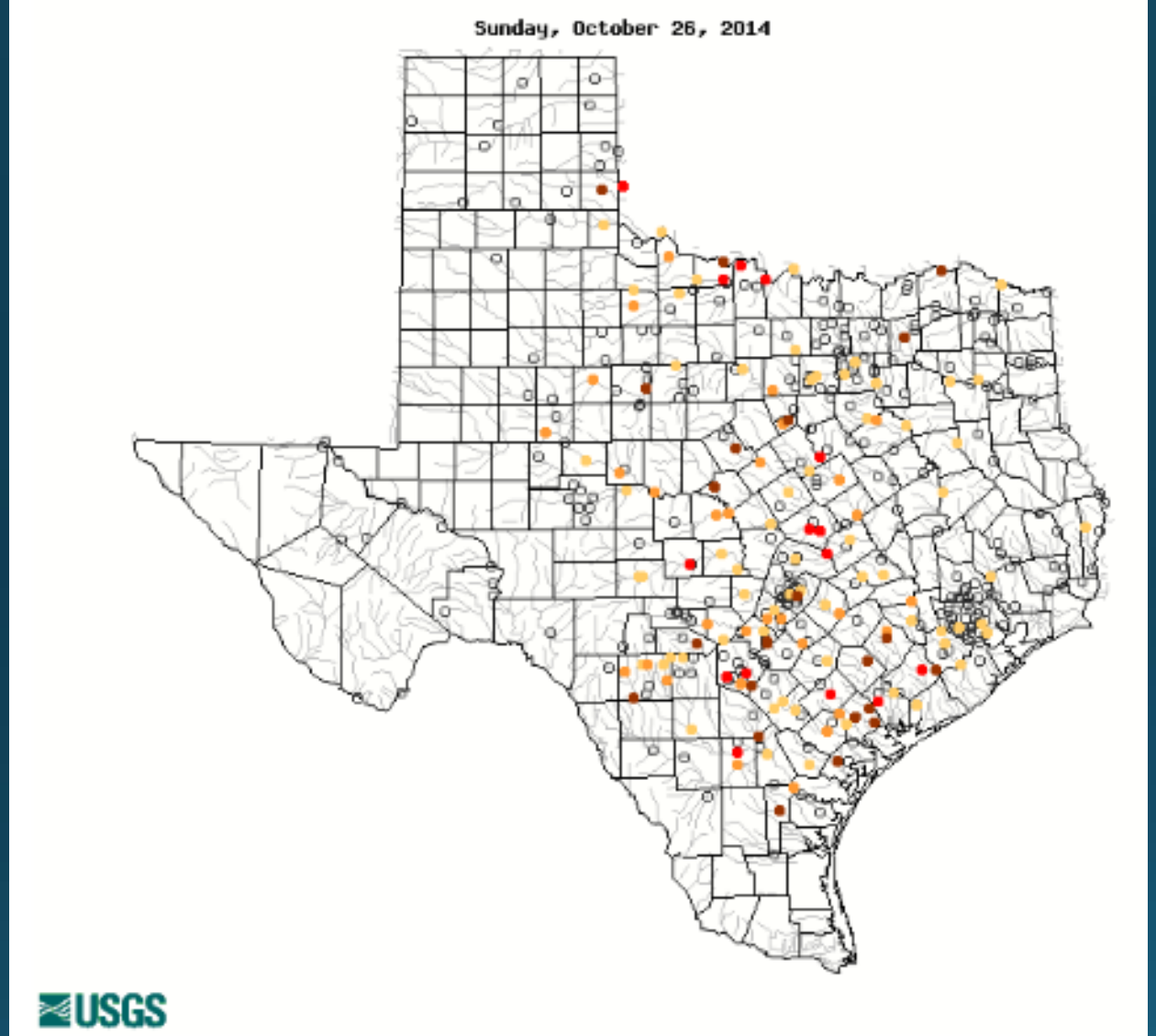


USGS

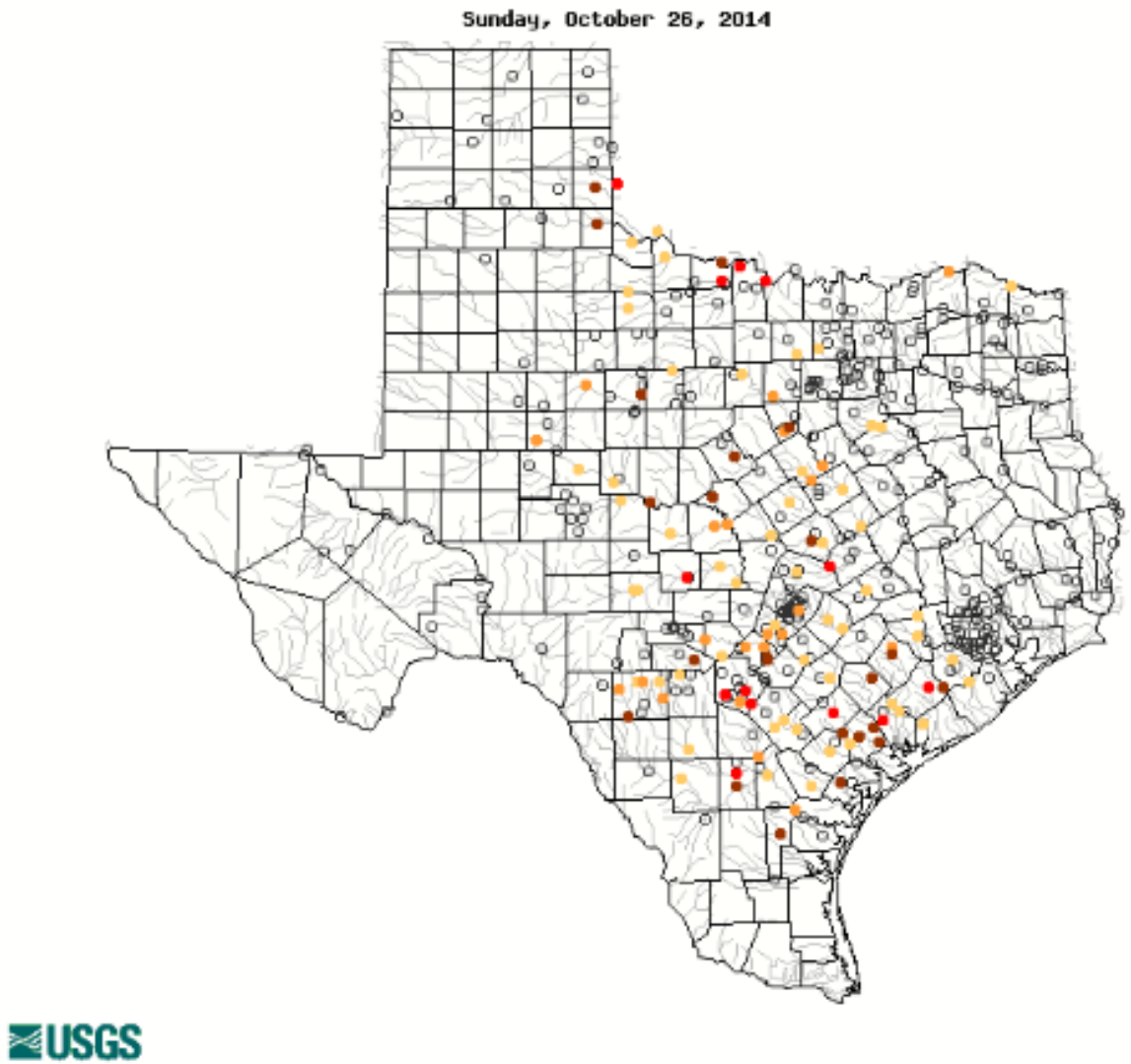
Click map to obtain more detailed drought information for the state

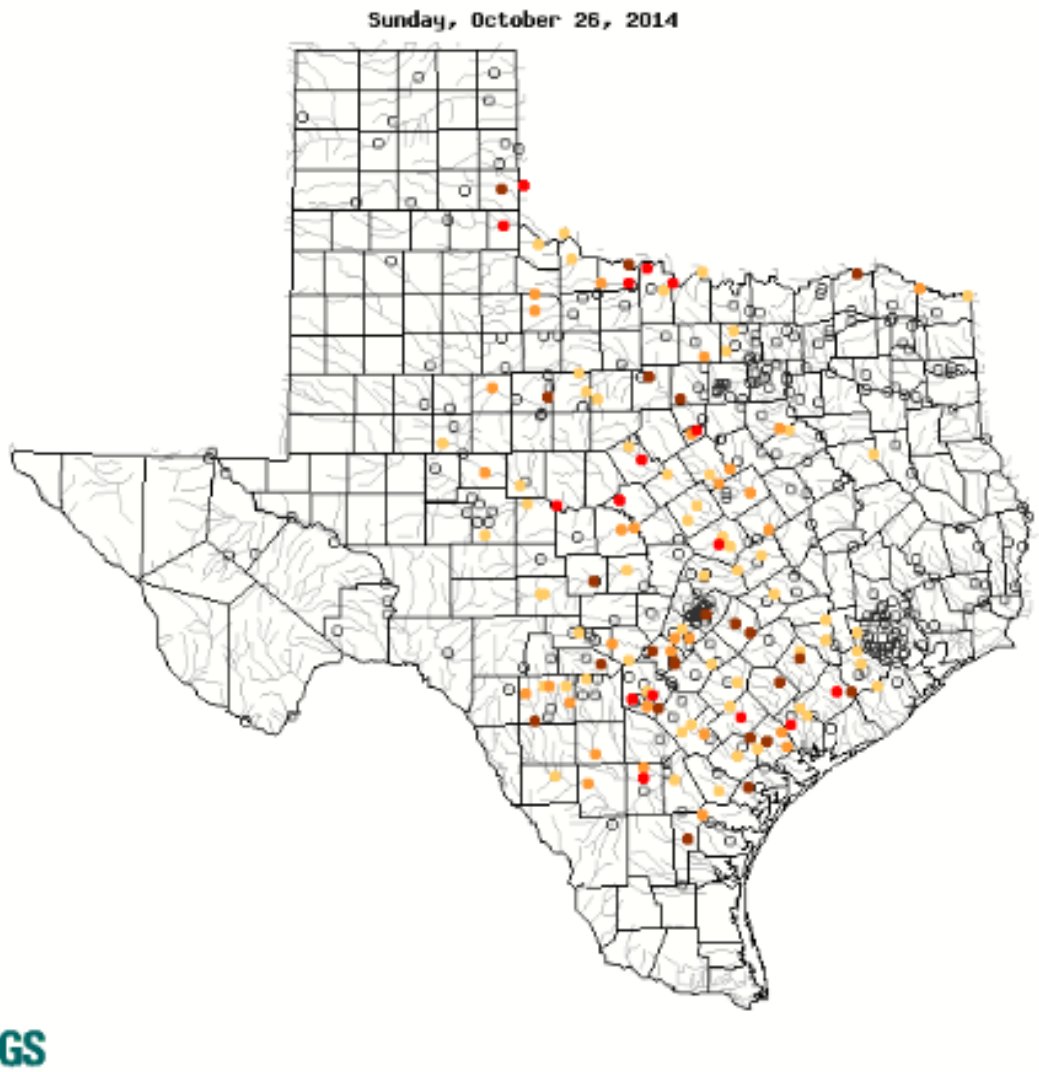
Explanation - Percentile classes				
Low	<=5	6-9	10-24	Insufficient data for a hydrologic region
Extreme hydrologic drought	Severe hydrologic drought	Moderate hydrologic drought	Below normal	

7 day


Sunday, October 26, 2014
USGS
Choose a data retrieval option and select a location on the map
List of all stations
Single station
Nearest stations
Explanation - Percentile classes
New low
Extreme hydrologic drought
<=5
Severe hydrologic drought
6-9
Moderate hydrologic drought
10-24
Below normal
Not ranked

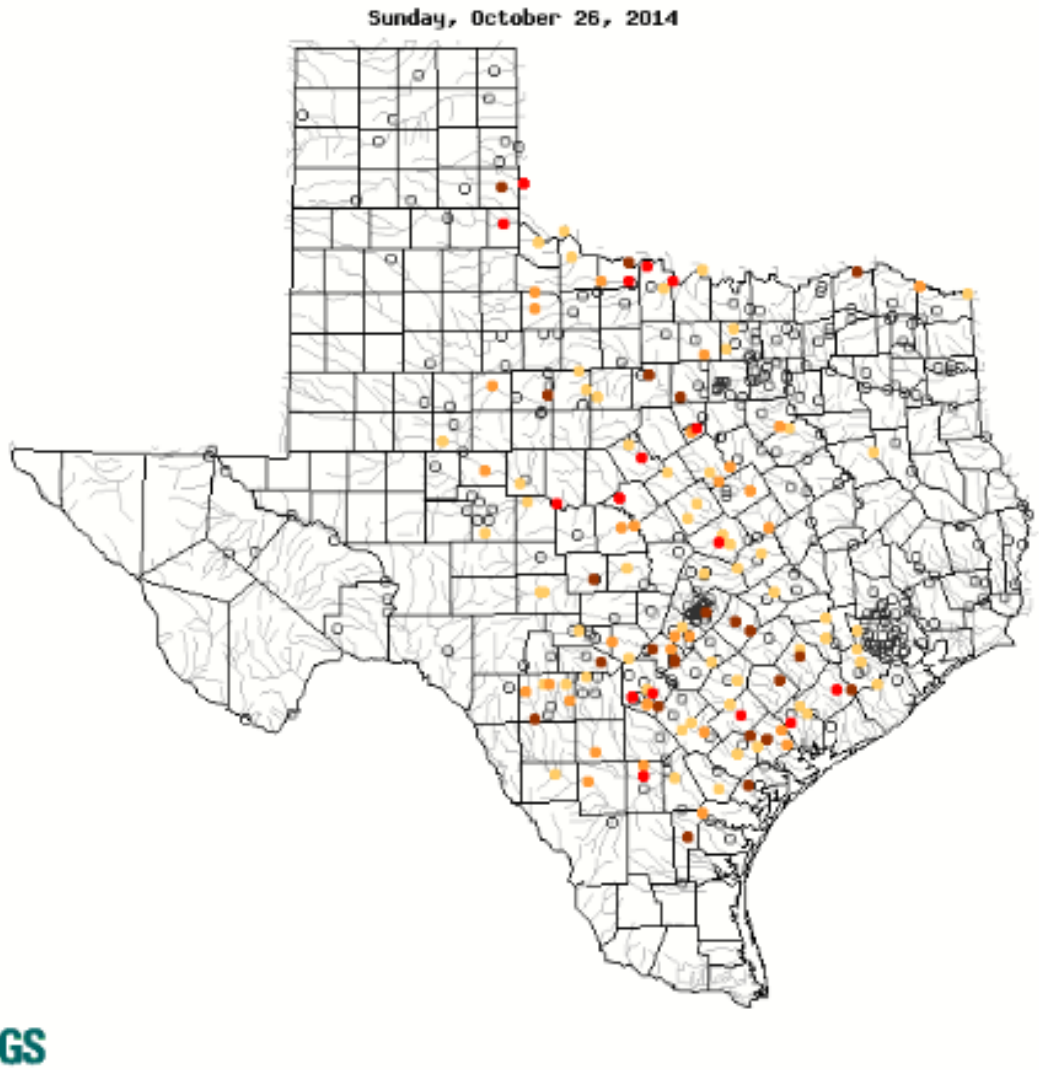
14 day

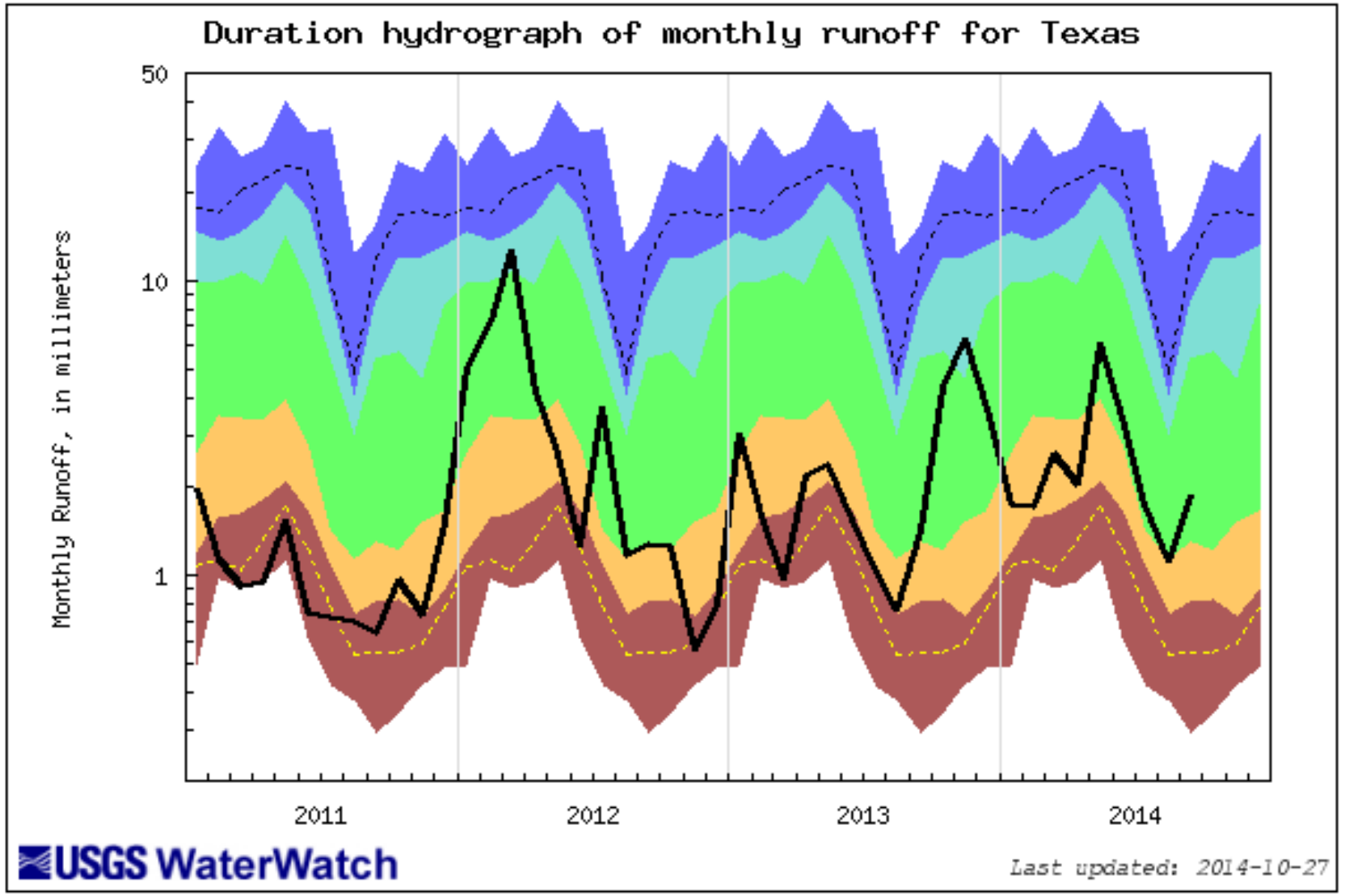

Sunday, October 26, 2014
USGS
Choose a data retrieval option and select a location on the map
List of all stations
Single station
Nearest stations
Explanation - Percentile classes
New low
Extreme hydrologic drought
<=5
Severe hydrologic drought
6-9
Moderate hydrologic drought
10-24
Below normal
Not ranked


Sunday, October 26, 2014
USGS
Choose a data retrieval option and select a location on the map
List of all stations
Single station
Nearest stations
Explanation - Percentile classes
New low
Extreme hydrologic drought
<=5
Severe hydrologic drought
6-9
Moderate hydrologic drought
10-24
Below normal
Not ranked

28 day

Monthly

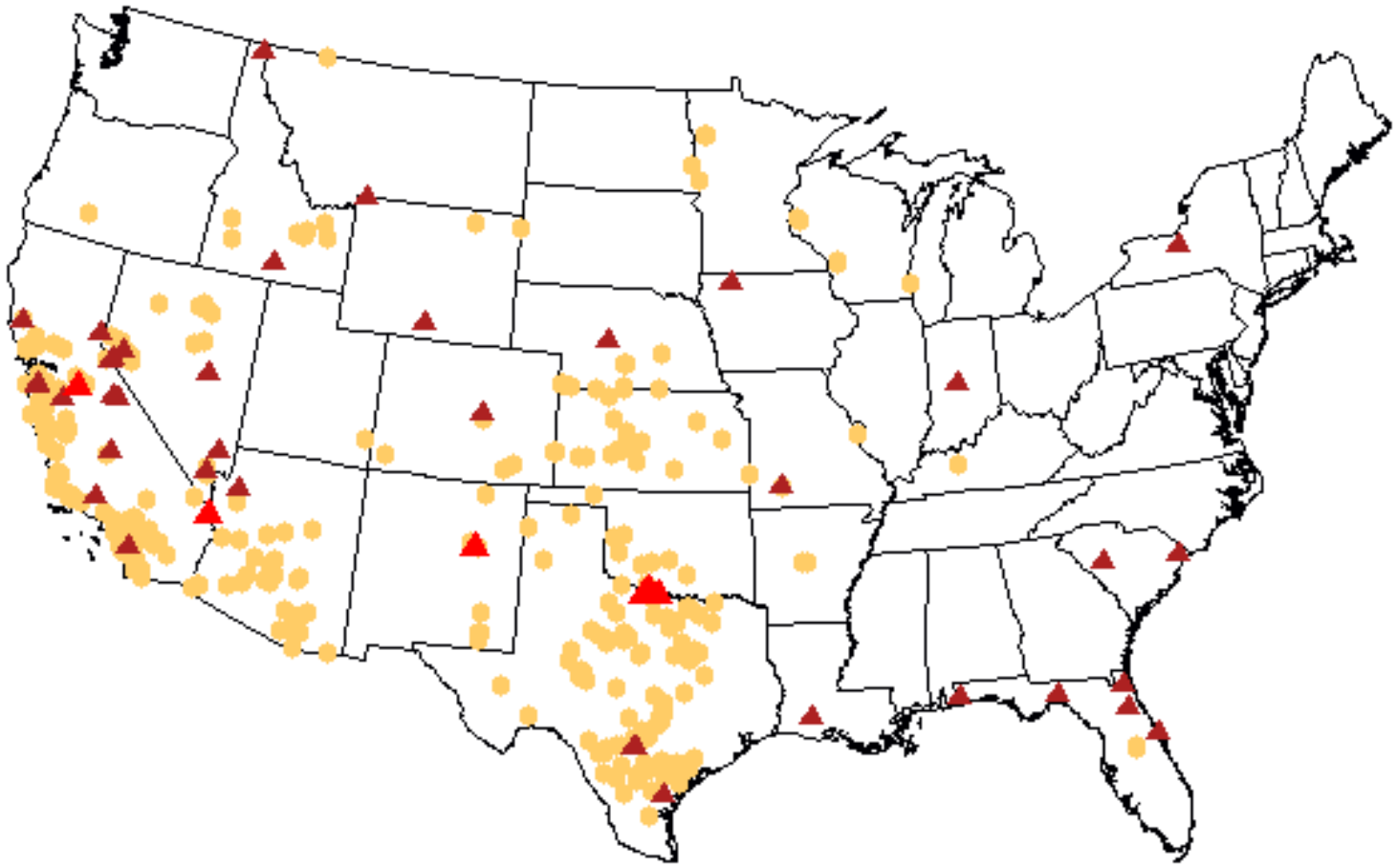

Sunday, October 26, 2014
USGS
Choose a data retrieval option and select a location on the map
List of all stations
Single station
Nearest stations
Explanation - Percentile classes
New low
Extreme hydrologic drought
<=5
Severe hydrologic drought
6-9
Moderate hydrologic drought
10-24
Below normal
Not ranked



Explanation - Percentile classes							
lowest-10th percentile	5	10-24	25-75	76-90	95	90th percentile -highest	Runoff
Much below Normal		Below normal	Normal	Above normal	Much above normal		

Map of Record Low 7-day Streamflow

Sunday, October 26, 2014



Explanation

- Record low flow with more than 30 years data
- Record low flow with less than 30 years data
- Zero flow sites

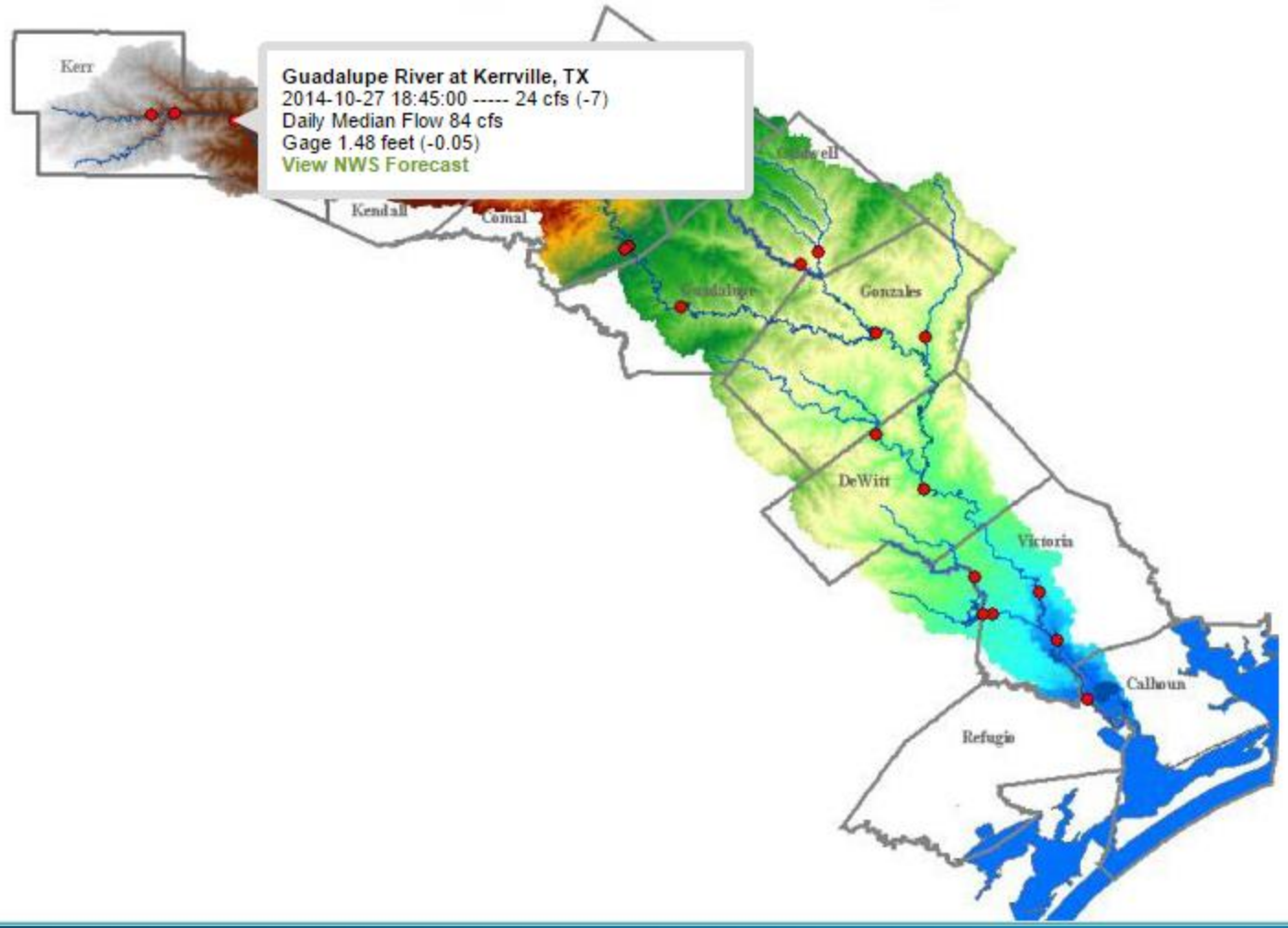
Guadalupe-Blanco River A

www.gbra.org/conditions/data.aspx

Apps | TexasState_Mail | MCWE_Laptop | TRACS | Texas State University | COA_FAA | Google | Newforma Info Exch... | The Ryan Lab | P0171 Subaru Syste... | TeriMarks's uploade...

This page is updated every 30 minutes with data obtained from USGS. Each red dot represents a USGS gage. Simply move your mouse over the gage to get the most recent data.

(+/-0.00) - indicates change in 24 hours



Guadalupe-Blanco River A

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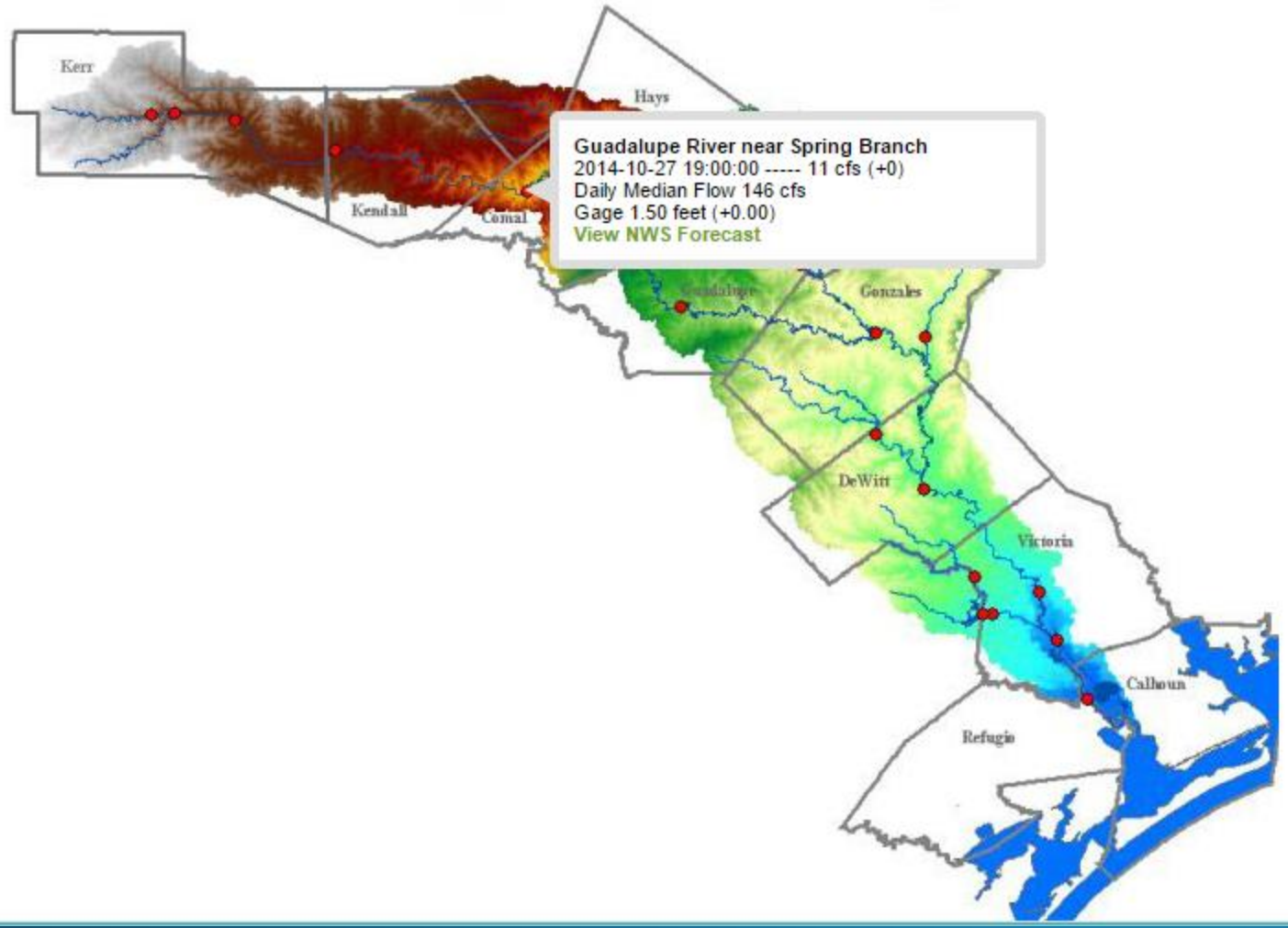

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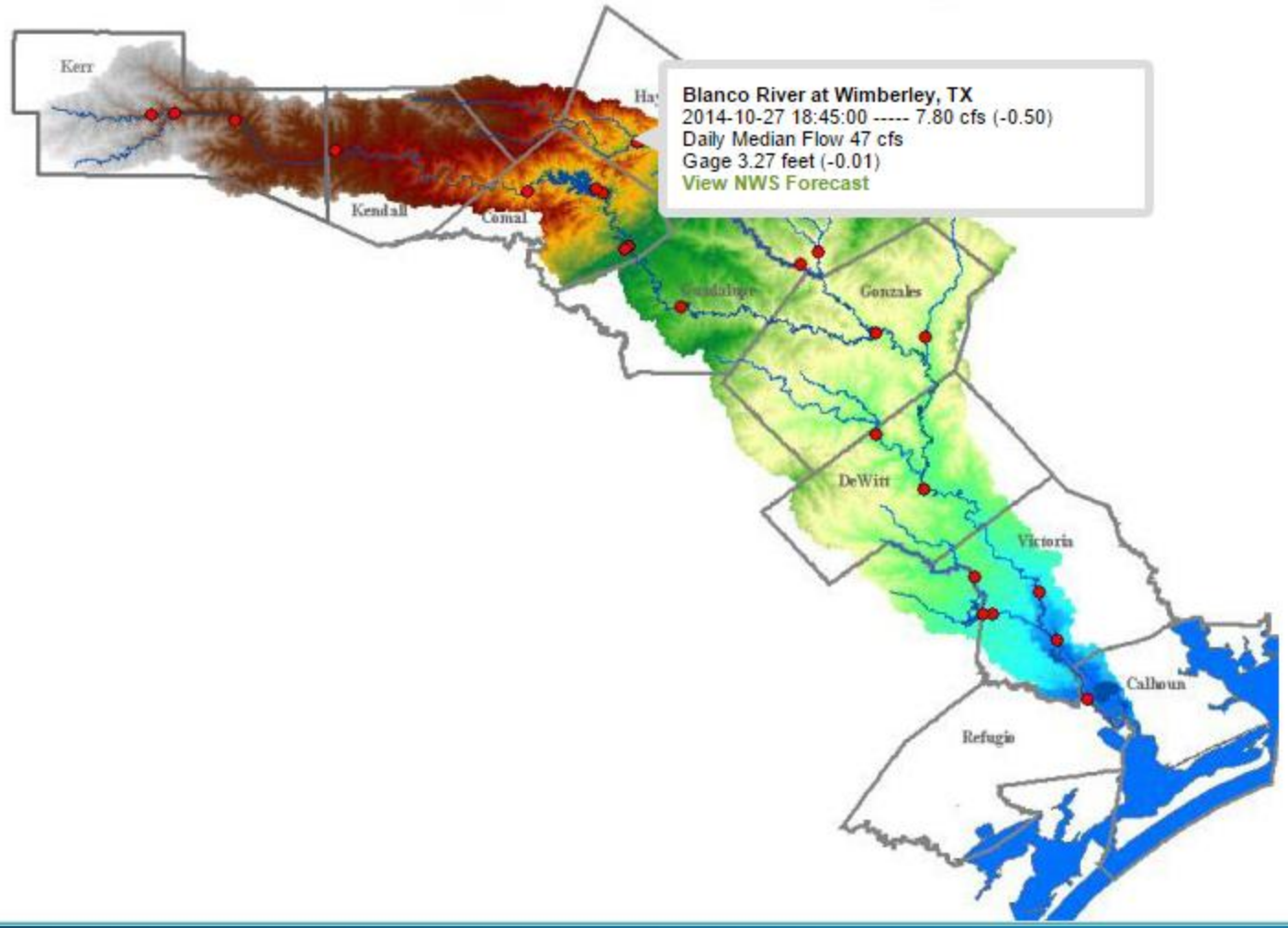

Guadalupe-Blanco River A

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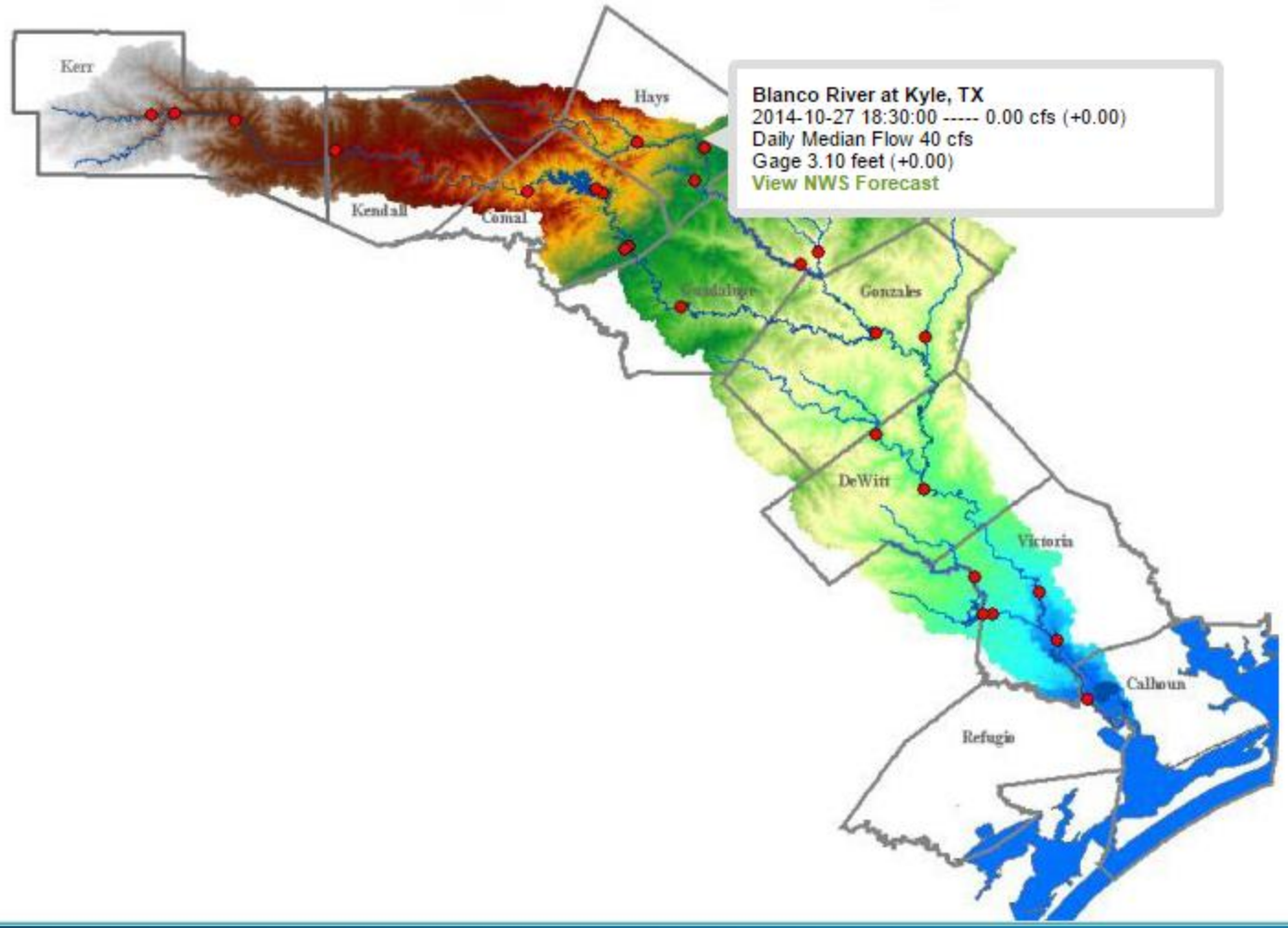

Brazos

- near

Sagerton, about 150 miles west of Fort Worth


Red River


Guadalupe River
at Rebecca Creek
Crossing

San Saba River between Llano and Brady


Pedernales River

Summary

- Many systems are under extreme stress that have potentially long term ecological implications to aquatic fauna (fish and mussels)
- Physical structure is not likely to be impacted and recover under increased flows
- Recovery of some species may not occur (local extirpations)
- Recovery of some species may occur relatively rapidly depending on refuge populations and life history strategies pre-adapted to drought conditions
- High potential for major shifts in aquatic community structure and diversity including increased distribution and abundance of introduced species

Not an Option